

# BOAT FEE REVENUES & EXPENDITURES

## Fiscal Year 2013 Report

.08

**DON'T  
GO OVERBOARD**

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HITCHHIKERS!**

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THE  
DAM  
SAFE**

**THE  
DROD CAN  
BE DEADLY**



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Department of Natural Resources  
Conservation and Recreation Division  
December 31, 2013  
Chuck Gipp, Director



## EXECUTIVE SUMMARY

In 2005, the Iowa General Assembly amended Iowa Code Chapter 462A.52 to increase boat registration fees for all types of watercraft, to change the registration cycle, and to require the Iowa Department of Natural Resources (DNR) to report on the increased revenues due to the fee increase and how they are expended. This is the seventh such annual report and includes data for FY13 compared to the base year in 2006.

The increased fees are required to be used to control the spread of aquatic invasive species, the administration and enforcement of navigation laws, and water safety education. The mandate required the Department to submit a report to the General Assembly by each year beginning in 2007. It was directed that the report contain summaries of the activities of the Department for the following:

1. Administering and enforcing programs to control aquatic invasive species
2. Administering and enforcing navigation laws and water safety
3. Amount of revenues collected as a result of fee increases
4. Detail of how the boat fee revenues were expended
5. Amount and source of all other boating related funds expended

### **Revenues: Comparisons and projections**

When boat fees were increased in the 2005 legislative session, the registration period also was changed from two years to three years. For planning purposes, the Iowa Department of Natural Resources now plans revenues over three years.

**Table 1**

<b>Previous Revenues Under Two-year Registration Periods</b>				
	<b>FY03</b>	<b>FY04</b>	<b>FY05</b>	<b>FY06</b>
Boat fees	\$2,563,493	\$372,481	\$2,611,295	\$387,908
Federal match	\$1,298,443	\$1,296,070	\$1,411,585	\$1,533,266
<b>Total Revenues</b>	<b>\$3,861,936</b>	<b>\$1,668,551</b>	<b>\$4,022,880</b>	<b>\$1,921,174</b>

Boat fees generated an average of \$1,483,794 per year (see Table 1) during the last four years of the two-year registration cycle. The last three years of actual record, (FY 11, 12 and 13), boat fees averaged \$2,629,597 per year. Fiscal Year 2013 was the start of the third three-year registration cycle since the fee increase.

**Table 2**

<b>Collected Revenues Under Three-year Registration Period</b>				
	<b>FY 11</b>	<b>FY 12</b>	<b>FY13</b>	<b>3-Years of Revenue</b>
Boat fees	\$899,714	\$484,144	\$6,504,933	\$7,888,796
Federal match	\$1,620,453	\$1,526,822	\$1,411,394	\$4,558,669
<b>Total Revenues</b>	<b>\$2,520,167</b>	<b>\$2,010,966</b>	<b>\$7,916,327</b>	<b>\$12,447,460</b>

Looking at the past three years of collected annual revenue (FY11-FY13) the average increase of boat fees is \$1,145,803 in additional state revenue per year over the base year. Federal funds include the safety and education portion and motorboat access portion from the Federal Aid in Sport Fish Restoration program, and Aquatic Invasive Species matching funds.

**Expenditures: Comparisons and Projections**

The final year under the previous fee structure, FY 2006, is the baseline year to measure future years' expenditures. Note that part of the seasonal Water Patrol Officer costs came from the Marine Fuel Tax fund in FY13 at a cost of \$98,415, and \$174,615 was expended from the same fund for navigational safety patrol boats, for an additional \$273,030 for navigation enforcement and boating safety this year.

**Table 3**

<b>General Expenditure Categories</b>		
	<b>Base FY 06</b>	<b>FY 13</b>
Navigation Enforcement and Boating Safety	\$1,995,996	\$1,910,717
Boat infrastructure maintenance/mgt	\$749,406	\$1,000,754
Aquatic Invasive Species	\$164,556	\$613,296
Water Trails and Dam Safety	\$10,410	\$167,741
<b>Total Expenditures</b>	<b>\$2,920,368</b>	<b>\$3,692,508</b>

The increase in spending in FY 13, compared to the baseline year of FY06, is \$772,140. Compared to the annual average increase of boat fees for the last three years (\$1,145,803), this indicates the Department did not spend \$373,663 of the increase during this reporting year. However, the MFT expenditures for navigation enforcement and boating safety were a factor. The increase remains in the fund to be used for the authorized purposes, and the Department tracks this amount to ensure the expenditure of the funds in the future for the authorized purposes.

More detailed reporting of program-level expenses follow in this report.

## AQUATIC INVASIVE SPECIES EXPENDITURES

The Iowa Department of Natural Resources Aquatic Invasive Species Program (DNR-AIS) is responsible for monitoring and managing aquatic invasive species (AIS) in Iowa. Goals of the DNR-AIS as stated in the “Plan for the Management of Aquatic Nuisance Species in Iowa” are:

- I. Minimize the risk of further introductions of Aquatic Invasive Species (AIS) into the state of Iowa.
- II. Limit the spread of established populations of AIS into uninfested waters in Iowa.
- III. Eradicate or control to a minimum level of impact the harmful ecological, economic, social, and public health impacts resulting from infestations of AIS in Iowa.

Priority AIS in Iowa include Eurasian watermilfoil (*Myriophyllum spicatum*), brittle naiad (*Najas minor*), zebra mussels (*Dreissena polymorpha*), bighead carp (*Hypophthalmichthys nobilis*), and silver carp (*Hypophthalmichthys molitrix*).

This report reflects expenditures for FY13. However, seasonal staff and survey information is from the summer of 2013 (i.e., May through September). Actions utilized to detect, manage, and prevent the introduction and spread of AIS in Iowa in FY13 included employing seasonal staff, developing partnerships to coordinate AIS activities, increasing public awareness of AIS, managing AIS infestations, and monitoring AIS populations. Major accomplishments included the following.



- Employed 19 Seasonal Aides
- Conducted 8,708 watercraft inspections reaching almost 24,000 people
- Supported 18 partnerships and cooperative projects
- Distributed signs, brochures, identifications cards, banners, posters, tattoos, maps, and regulations booklets
- Leased 15 billboards with AIS prevention messages on interstate and state highways
- Targeted water recreationists with AIS prevention messages using television and magazine advertising, a museum display, print media, news releases, radio and television interviews, and presentations
- Chemically treated 14 waterbodies for Eurasian watermilfoil or brittle naiad
- Surveyed vegetation in 64 waterbodies
- Posted signs at accesses of waterbodies infested with AIS
- Surveyed adult zebra mussels in Clear Lake and Bluebill Lake
- Placed zebra mussel veliger settlement samplers in over 25 lakes and reservoirs
- Sampled water for zebra mussel veligers in 17 lakes and 6 rivers
- Monitored Asian carp in interior and border rivers

- Purchased equipment for DNR Fisheries management stations and hatcheries to prevent the spread of AIS during operations
- Supported changes to the Aquatic Invasive Species Law

### **Aquatic Invasive Species Program Personnel and Activities**

A Natural Resources Biologist has coordinated the DNR-AIS since 2000, and a permanent, full-time Natural Resources Technician was added in October 2006. During the summer of 2013, 16 Seasonal Aides conducted watercraft inspections, 2 Seasonal Aides surveyed waterbodies for AIS across the state, and 1 Seasonal Aide provided field sampling assistance to the DNR-AIS. Three Student Conservation Association interns supported by a Dickinson Clean Water Alliance Grant and the Okoboji Protective Association assisted with watercraft inspections in Dickinson County in 2013. Watercraft inspectors discussed inspecting watercraft for AIS with operators from May through September 2013. They collected information on AIS presence and location, watercraft type and state of registration, number of people, last and next waterbody visited, and operator familiarity with Eurasian watermilfoil, brittle naiad, zebra mussels, Asian carp, and Iowa’s AIS law. Trailer stickers reminding boaters to prevent the spread of AIS were given to each operator after inspection. The table below summarizes the watercraft inspection effort of the DNR-AIS prior to receiving boat registration funds (2006) when 2-3 seasonal employees split their time between watercraft inspections and AIS surveys, and compares it to the current reporting year.

**Table 4**

	<b>2006</b>	<b>2013</b>
Seasonal Employees	3 PT	16 FT, 3 PT
Watercraft Inspected	791	8,708
Personal Contacts	2,350	23,816
Waterbodies	16	68

DNR-AIS staff supported several partnerships and working groups in FY13:

- Aquatic Nuisance Species (ANS) Task Force
- ANS Task Force Recreational Activities Committee
- Mississippi River Basin Panel on ANS
- Missouri River ANS Work Group
- Association of Fish and Wildlife Agencies (AFWA) Invasive Species Committee (Vice Chair)
- AFWA Asian Carp Work Group
- AFWA Biofuels Work Group
- Midwest Governors Association Aquatic Invasive Species Working Group
- National Invasive Species Awareness Week (Steering Committee Member)
- Aquatic Invasive Species Boat Design Task Force
- Midwest Invasive Plant Network
- Midwest Aquatic Plant Management Society
- Upper Midwest Invasive Species Conference (Planning Committee Member)
- United States Geological Survey Asian Carp Research
- Iowa Chapter of the American Fisheries Society (President)

- Iowa State University (ISU) Natural Resources Ecology and Management Outdoor Skills Committee
- Conservation Leaders for Tomorrow
- REAP City Scoring Committee

## Aquatic Invasive Species Outreach Materials

The DNR-AIS has different types of outreach materials targeting water recreationists in Iowa. A new method used in FY13 was commercial advertising that aired in July and August on ABC5 WOI-DT. The first commercial alerted boaters about changes to the Aquatic Invasive Species Law, and the second reminded boaters to “Clean, Drain, Dry” their boats and equipment when leaving a water access. Additional new methods included magazine advertisements and a traveling museum exhibit developed by the National Mississippi River Museum and Aquarium in Dubuque.



The DNR-AIS also provided information through 15 billboards posted along interstate and state highways near high-use and infested waterbodies in Iowa. Banners with billboard images were also made available to be displayed near boat ramps in areas of the state without billboards and at outdoor events.

Exhibits at the 2013 Iowa State Fair included a “Clean, Drain, Dry” banner, AIS Law Changes poster, live Asian carp, and Eurasian watermilfoil, brittle naiad, and zebra mussel specimens.

In addition to signs posted at all boat access sites and information on the Iowa DNR website, the following informational materials were distributed during watercraft inspections, to all Iowa DNR Fisheries regional and field offices, during the Iowa State Fair, at state and county parks and nature centers, at businesses (e.g., marinas, bait shops, sporting good stores), and at presentations and field days.

- Help Stop Aquatic Hitchhikers brochure
- Aquatic Invasive Species Law flyer
- AIS identification cards
- Keep a Lookout for New Invasive Aquatic Plants in the Midwest flyer
- Don’t Dump Bait posters
- 2013 Iowa Fishing Regulations booklet
- Handbook of Iowa Boating Laws and Responsibilities
- Stop Aquatic Hitchhikers tattoos, koozies, sun kits
- Spirit Lake, East Okoboji, West Okoboji boaters’ maps with car wash locations

News releases targeted statewide audiences regarding new AIS discoveries in Iowa and before high-use boating events such as Memorial Day, July 4<sup>th</sup>, and the waterfowl season. DNR-AIS and Fisheries staff were also interviewed for radio programs, television stories,

and newspaper articles regarding AIS distribution, identification, management, and prevention. Facebook postings also included AIS information in FY13.

DNR-AIS staff participated in several fishing and outdoor events to spread the AIS message. DNR-AIS staff also gave presentations about AIS in a variety of settings in FY13, including:

- Iowa DNR Fisheries Seasonal Aides and Student Conservation Association Intern Training
- Iowa Association of County Conservation Boards Winter Fest
- Taking the Road Less Traveled: Career Conferences for Girls
- Outdoor Journey for Girls Workshops
- Becoming an Outdoors Woman Workshop
- Upper Midwest Invasive Species Conference
- The Nature Conservancy Conference for Wisconsin/Illinois/Iowa
- ISU Natural Resources Ecology and Management Outdoor Skills Weekend
- Conservation Leaders for Tomorrow Workshops
- Iowa Children's Water Festival
- ISU Program for Women in Science and Engineering Job Shadow Day
- ISU Student Chapter of the American Fisheries Society Meeting
- Ding Darling Day at the National Mississippi River Museum and Aquarium
- Boone High School Career Fair
- Touched by Science Middle School Field Day
- Buena Vista County – City and County Supervisors Meeting
- Central Iowa Anglers

Data collected during watercraft inspections indicates that public awareness of AIS in Iowa has increased as a result of DNR-AIS outreach activities. Fifty-one percent of boaters interviewed in 2001 said that they were familiar with invasive species. By 2012, that number had increased to 89% and remained similar in 2013.

### **Aquatic Invasive Species Management and Monitoring**

DNR Fisheries staff cooperated with DNR-AIS staff to chemically treat brittle naiad (BN) infestations in 2013.

- Don Williams Lake (Boone County), BN
- Floyd CCB Pond (Floyd County), BN
- George Wyth (Black Hawk County), BN
- Great Western Pond (Carroll County), BN
- Grundy County Lake (Grundy County), BN
- Hannen Lake (Benton County), BN
- Izaak Walton League Pond (Carroll), BN
- Lake Hendricks (Howard County), BN
- Lake MacBride (Johnson County), BN
- Mile Hill (Mills County), BN
- Pleasant Creek Lake (Linn County), BN
- Rodgers Lake (Benton County), BN
- Willow Lake (Harrison County), BN
- Yellow Smoke Lake (Crawford County), BN



Natural Resource Aides surveyed aquatic vegetation in 64 Iowa waterbodies in June, July, August, and September 2013 to monitor for new AIS infestations. Species lists and aquatic vegetation maps were completed for each waterbody surveyed. Fisheries and wildlife biologists and county conservation board staff also monitored aquatic vegetation in their areas during management activities. Three new infestations of brittle naiad and one new infestation of Eurasian watermilfoil (EWM) were discovered in Iowa in 2013.

- Arrowhead Lake (Sac County), BN
- Black Hawk Slough (Sac County), BN
- Don Williams (Boone County), BN
- Jennett Pond (Story County), EWM

Signs are posted at all AIS-infested waterbodies alerting the public about the species present and how to prevent its spread. Eurasian watermilfoil has been identified in 46 waterbodies, including private ponds, in Iowa since 1993, and brittle naiad has been identified in 49 waterbodies since 2003.

The following interior lakes in Iowa have known infestations of zebra mussels: Clear Lake (Cerro Gordo County), Rathbun Lake (Appanoose County), Bluebill Lake (Cerro Gordo County), East Okoboji Lake (Dickinson County), Upper Gar Lake (Dickinson County). Lake Delhi (Delaware County) was infested with zebra mussels before the dam failed in 2010 and eliminated the former lake on the Maquoketa River.

Zebra mussels were first discovered in Clear Lake in 2005. DNR-AIS and DNR Fisheries staff have surveyed zebra mussel densities in Clear Lake each summer since 2006 by counting individuals attached to rock substrate. In 2013, zebra mussel densities were the lowest they have been since 2006. Low lake water levels in 2012 and 2013 contributed to the decline because many zebra mussels were exposed as water levels dropped. For the past several years, over 95% of the rocks sampled had numerous attached zebra mussels or were completely covered with zebra mussels. Zebra mussels were also colonizing on each other. In 2013, all of the rocks sampled either had no or single adult and juvenile zebra mussels attached. Rocks along the north shore had multiple juveniles, which is evidence of prevailing summer winds from the south. Settlement samplers placed in the lake also help determine zebra mussel population size and distribution.



In October 2007, zebra mussels were discovered on a boat that had been transported from the Mississippi River and moored at a marina on Rathbun Lake since late June. DNR-AIS and DNR Fisheries staff found no zebra mussels in the lake at that time. Staff conducted dive surveys annually from 2008 until 2011 and found no zebra mussels in the marina or surrounding areas. Additionally, no zebra mussels have been observed on settlement samplers placed in Rathbun Lake

each summer since 2008. Very low numbers of veligers (up to 1 per quart) were detected in water samples collected from 2008 through 2011; however, no veligers were collected in 2012 and 2013. Monitoring will continue to determine if a population is still established in the lake.

A new zebra mussel infestation was indicated by a settlement sampler in Bluebill Lake (2 miles from Clear Lake) in July 2012 and confirmed with additional sampling that year. Surveys conducted in 2013 indicated a population density similar to Clear Lake due to low waters levels in Bluebill Lake, too, in 2012 and 2013.

A single zebra mussel was found on a settlement sampler in September 2012 in Upper Gar Lake. Water samples taken at that time from Upper Gar, Spirit, East Okoboji, West Okoboji, Minnewashta, Lower Gar, and Welch Lakes did not contain zebra mussel veligers. Veliger samples were collected monthly from May through September 2013 from all these lakes. A low number of veligers were found in the June sample from East Okoboji. Settlement samplers were also placed throughout these lakes, and no zebra mussels were collected on them. Spirit Lake staff started looking at boat hoists and docks removed from the lakes in early November and found adult and juvenile zebra mussels attached to hoists removed from East Okoboji, West Okoboji, and Lower Gar Lakes. Monitoring efforts planned for 2014 include veliger sampling, settlement samplers, boat dock/hoist inspections, and dive surveys to determine zebra mussel population size and distribution in the Spirit Lake/Okoboji chain of lakes.

DNR-AIS and DNR Fisheries staff placed multiple zebra mussel veliger settlement samplers in over 25 lakes and reservoirs in Iowa in 2013 to monitor for early detection of zebra mussels. No new zebra mussel infestations were discovered from settlement sampler monitoring in 2013.

The U.S. Army Corps of Engineers, Minnesota DNR, Wisconsin DNR, Iowa DNR and National Park Service staff collected zebra mussel veliger samples from the Upper Mississippi River and selected tributaries during July and August 2013 to monitor trends in veliger abundance and peak production. In Iowa, DNR staff collected samples below Lock and Dam 14 and from the Maquoketa, Wapsipinicon, Iowa, and Cedar Rivers. The samples were sent to the U.S. Army Corps of Engineers Research and Development Center in Vicksburg, Mississippi, for analysis. There have been no zebra mussel veligers found in the Maquoketa River samples since the Lake Delhi dam broke. Similar to the Maquoketa River, the Cedar River has the influence of Clear Lake on its zebra mussel population. During high water, the outlet of Clear Lake flows into Willow Creek and then to the Winnebago River, Shell Rock, and Cedar Rivers. Low densities of veligers have been collected from each of those rivers during past sampling. DNR-AIS staff also collected water samples for zebra mussel veliger analysis from the following additional lakes in 2013: Crystal (Hancock County), Little Wall (Hamilton County), Briggs Woods (Hamilton County), Eldred Sherwood (Hancock County), Rudd (Floyd County), Saylorville (Polk County), Storm (Buena Vista County). All samples still need to be analyzed.

Bighead carp have been reported throughout the Mississippi and Missouri Rivers and in large and small tributaries of both in southern and central Iowa for over 10 years. New upstream locations were reported in 2013 for bighead carp (Cedar River, Black Hawk County) and silver carp (Cedar River, Linn County). DNR-AIS staff assisted with Asian carp collection for an Iowa State University research project funded by DNR-AIS to evaluate the distribution and population dynamics of Asian carp in southeast Iowa rivers. An Asian carp research symposium will be held during the Midwest Fish and Wildlife Conference in January 2014 to allow state, federal, and university staff to share and coordinate monitoring and research efforts for Asian carp throughout the Upper Midwest.



In FY13, the DNR-AIS purchased 32 fyke nets for four DNR fisheries management and research stations with known AIS infestations within their districts. These nets provide a second set of sampling gear for field crews so one set can be cleaned and dried completely before being used in another waterbody. The DNR-AIS also purchased filters for DNR fish hatcheries on the Mississippi River, Rathbun Lake, and Spirit Lake to help eliminate zebra mussels and veligers from hatchery ponds and from water loaded into distribution trucks.

### **Aquatic Invasive Species Law**

Legislation was passed in 2013 to amend the Aquatic Invasive Species Law. It is now illegal to transport aquatic plants, in addition to prohibited aquatic invasive species, on water-related equipment. Boaters are also required to drain all water from boats and equipment before leaving a water body and to keep drain plugs removed or opened during transport. DNR-AIS used news releases, flyers, television and radio advertisements, and personal contacts to make boaters and anglers aware of the law changes. New boat access signs and brochures will be developed and distributed in 2014 to further alert water recreationists about the law changes.

**Table 5**

<b>Aquatic Invasive Species Expenditures</b>		
	<b>FY06</b>	<b>FY13</b>
Personnel	\$85,234	\$362,024
Travel Expenses	\$4,915	\$34,155
State Vehicle Operation	\$3,281	\$15,763
Office Supplies	\$399	\$409
Facility Maintenance Supplies	\$26	\$5,502
Equipment Maintenance Supplies	\$2,936	\$2,344
Ag Supplies	\$42,751	\$53,350
Other Supplies	\$100	\$2,443
Printing	\$477	\$11,097
Uniforms	\$455	\$398
Postage	\$536	\$116
Communications	\$651	\$768
Utilities	\$0	\$436
Professional Services	\$0	\$0
Outside Services	\$595	\$2,295
Advertising/Publishing	\$11,390	\$63,050
Reimbursement	\$0	\$501
Equipment	\$1,042	\$16,128
IT Hardware	\$0	\$1,100
Indirects	\$9,768	\$41,418
Total	\$164,556	\$613,296

## **BOATING NAVIGATION ENFORCEMENT AND WATER SAFETY EXPENDITURES**

During the summer months, conservation officers and seasonal water patrol officers around the state use a variety of enforcement techniques to keep Iowa waterways safe for all ages.

Several group enforcement efforts on Iowa's 19,000 miles of interior rivers are conducted annually and are known as river sweeps. This technique allows officers to start at a specific point and continue downstream contacting boaters and educating them about boating regulations and safety.



Boating While Intoxicated (BWI) enforcement is a focus every year for officers. Iowa participated in "Operation Dry Water" on June 28-29, 2013, which is a national campaign that emphasizes the dangers of boating and drinking.

More than 39 conservation officers participated in this three day event, contacting 1,613 boaters, performing safety equipment checks on 426 vessels and issuing 90 citations or warnings. Throughout the summer, a total of 51 BWI arrests were made by various officers.

Conservation officers provide boating education programs to various groups throughout the year. Fifty-seven programs were presented to students about boating safety in all situations, including boating safety while waterfowl hunting. Approximately 1,600 students participated in these programs



**Seasonal Water Patrol Officers Program**

The department receives approximately 125 applications each year from potential candidates who want to be a part of the seasonal water patrol officer (WPO) program. The WPO program has been in effect since the 1980s, and allows individuals the opportunity to work for the Law Enforcement Bureau while performing on-the-water education and navigation enforcement.



The seasonal water patrol officers assist full time officers in the enforcement of all fishing and navigation activities across Iowa. This program helps train future full time officers. Currently, almost half of the DNR conservation officers started their careers as seasonal water patrol officers.

In 2006, the department employed 22 seasonal water patrol officers. In 2013, the department had 31 WPOs on the books at a total cost of \$332,303. This year, \$98,415 was used from the Marine Fuel Tax fund to pay for a portion of the total cost of the WPOs. (See Addendum B, page 36).

Table 8, below, categorizes the boating enforcement activities for 2013.

**Table 6**

Law Enforcement Boating Activities	
Calendar Year*	Totals
<b>2013</b>	
Navigation Contacts	23,668
Navigation Citations	1,706
Special Events Patrolled	180
Accident Investigations	24
Boat Iowa Classes Taught	14
Boater Education Hours	1,644
Navigation Enforcement Hours	28,632



## **Boater Education**

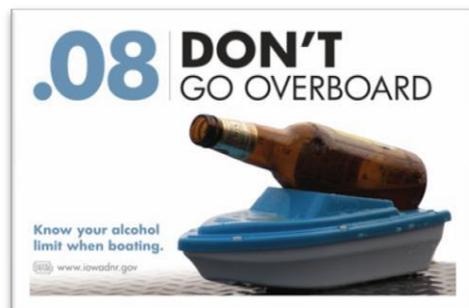
A boating education coordinator was hired in 2007, and the DNR now has a successful and proactive boater educational program. Nationally, boating law administrators and education coordinators focus on helping boaters understand and realize the importance of wearing life jackets. The Iowa legislature, after 5 years of effort, passed a child safety law in 2008 requiring children under 13 to wear a PFD in a moving vessel.



In FY13 the education program continued to focus on the importance of wearing life jackets and repainted the boat ramps in Iowa's state parks. The "Life Jacket Zone" message reminds boaters about the importance of wearing a life jacket while on the water. The IDNR partnered with United States Power Squadron (USPS) members and United States Coast Guard Auxiliary (USCGA) members to assist with painting the 4'x 4' bright yellow and black stencil on over 50 boat ramps located in the parks.

The Boater Education program partnered with Honey Creek Resort and implemented a "life jacket" loaner program. The focus of the program was to make a variety of life jackets available to the public at no cost. The sizes of life jackets ranged from adult sizes all the way down to infant sizes. If a boater is without enough life jackets or the proper size of life jacket for each person on-board, jackets may be borrowed for the day. Over four hundred lifejackets were loaned out to the public during this year at Lake Rathbun. The Boater Education program will continue to seek out additional pilot locations for the "life jacket loaner" program.

The ".08 Don't Go Overboard" campaign used posters, public service announcements and public outreach to educate boaters on the dangers of drinking and boating. Information was again publicized to make sure the public understands that the blood alcohol content level for drinking and boating is now the same as the level for operating a vehicle. The "Boating While Intoxicated" campaign will continue to grow in the future to make the waters of Iowa safer for everyone.



The department also offers Boater Education Certificate classes to accommodate children between the ages of 12 and 18 who need the course to be able to operate motor boats. A total of 1,538 students received a certificate through 14 classes offered in 2013.

The table below lists the FY 2013 operations costs for the boating navigation enforcement and safety education programs, with the baseline year of 2006 displayed.

Note that part of the seasonal Water Patrol Officer costs came from the Marine Fuel Tax fund in FY13 at a cost of \$98,415, and \$174,615 was expended from the same fund for navigational safety patrol boats, for an additional \$273,030 for navigation enforcement and boating safety this year.

**Table 7**

<b>Navigation Enforcement and Safety Education</b>		
	<b>FY06</b>	<b>FY13</b>
Personnel and Operations	\$1,366,842	\$1,245,104
Officer Retirements	\$73,986	\$75,673
Vehicles and Depreciation	\$204,916	\$297,854
In State Travel	\$54,495	\$27,094
Printing	\$60,274	\$5,834
Communications	\$30,509	\$31,187
Indirects	\$204,974	\$227,971
<b>Totals</b>	<b>\$1,995,996</b>	<b>\$1,910,717</b>

**DNR Patrol Boats**

The Law Enforcement Bureau divides the state into 6 districts and employs district supervisors to manage each area. The supervisors determine specific needs when purchasing large patrol boats in order to provide quality navigation enforcement and boating education in each area. Officers use several different types of vessels for navigation enforcement and boating education.

The Department currently has approximately 36 large patrol boats for navigation enforcement and boating education on Iowa’s waterways. The goal is to replace vessels at least every 5 years, and earlier if needed.

In FY 2013 the Department used \$174,615 from the Marine Fuel Tax fund to supplement the purchase of five large patrol boats and several smaller vessels for navigation enforcement.



## Water Trails and Low-head Dam Public Hazard Program Expenditures

The Iowa DNR water trails and low-head dam public hazard program works statewide to ensure improved navigational safety on waterways throughout Iowa. Water safety education, establishment of a river mileage-based signage system and a hazard warning signage system, development of navigational maps, and advising placements and designs for water accesses and portage trails around dangerous dams are all components of the program mission.



Dozens of water trail construction projects, planning and design meetings, and water trail designations unfolded in fiscal year 2013. These project incorporated new techniques developed under statewide plans and are results of locally developed initiatives. Iowa DNR water trails and low-head dam public hazard programs are administered by the DNR rivers team under the Land and Waters Bureau. Navigation and water safety activities include:

- Plans, administers funds for, and places navigational signage, including mileage-based access numbers at landings, roadway signage leading people to boat accesses, dam warning signage, etc. via the water trails program.
- Plans, designs, and maintains warning signage and portage trails at DNR-owned low-head dams.
- Works with communities to install dam warning signage where dams have led to fatalities for recreational users. All users are considered, including walk-in anglers powerboaters, tubers, and paddlers.
- Requires water trail developers to place, maintain, and update dam warning signage.
- Purchases and distributes educational flyers on canoe and kayak safety, low-head dam safety, participate in “Wear It” campaign targeting canoes and kayaks with promotional items purchased under operations budget.
- Advises fisheries, county conservation, and municipal staff on boating access improvements, including boat ramps and canoe launches.

- Trains county conservation, DNR, and children’s camp staff in safely leading and teaching during canoe outings using American Canoe Association curriculum and the Rivers’ team certified ACA instructors.
- Works to reduce hazards of low-head dams with high death rates through management of mitigation projects.

River programs conducted 25 outreach events related to water trail plan development throughout the state in the 2013 paddling season. These events provided education and drew people to become more involved in their local water trail efforts.



The Iowa DNR encourages local ownership of water trails throughout Iowa that support education, navigation, and recreation. Technical assistance is provided to communities working to find solutions at aging dams, and provides funds for mitigating dam problems, solving safety hazards, fish passage, upstream flooding, and failure-related issues.

The river programs team serves a growing segment of Iowans – canoeists and kayakers, as well as more traditional recreational segments, including anglers and power boaters. National statistics show that canoeists and kayakers have a higher rate of death per capita compared to other boaters. Two brochures, “SmartStart for Safe Paddling” and “The Drowning Machine” continue to be disseminated to county recorders, boat rental facilities, paddling clubs, local governments, and field staff. This fiscal year, the water trails program completed a Lower Cedar River map and guide, its ninth “Expedition and Fishing Guide” for whole river systems. These maps contain angling information, dam, and boat launch locations. Printing is paid for cooperatively with the fisheries bureau, and the brochure maps are being disseminated in cooperation with Iowa Welcome Centers, county conservation boards, state parks, and fish hatcheries.

## **Staffing**

The river programs coordinator is responsible for overall program direction, which in the current fiscal year involved statewide plan development, collaborating on river survey, assessment, and design work with DNR Engineering, and technical assistance provided to external dam owners. A construction technician continues to plan, develop, and maintain warning signage plans and portage trails, including launches and landings, around these dams. The construction technician also advises other communities on similar projects. Half of one FTE's time focuses on leading river survey and assessment work at low-head dams. The other half of this position focuses on the Protected Water Areas program, a land conservation program along rivers, and is not within the purview of this report. A water trails coordinator contracts with local planners to lead planning efforts in coordination with state-level strategies and standards. An outreach coordinator plans events, organizes training opportunities for trip leaders and rental personnel, conducts surveys and disseminates marketing materials and publications.

Iowa DNR is responsible for managing six major low-head dams on navigable streams. River programs staff updated signage plans according to the new hazard signage manual, installed signs, and maintain portages at these dams in fiscal year 2013.

**Table 8**

<b>Expenditures for Water Trails &amp; Dam Safety</b>		
	<b>FY06</b>	<b>FY13</b>
Personnel	\$7,572	\$128,763
Travel Expenses	\$1,038	\$2,572
State Vehicle Operation & Depreciation		\$5,570
Office Supplies & IT Hardware		\$2,592
Facility Maintenance Supplies		\$2,763
Equipment Maintenance Supplies		\$1,318
Other Supply (training programs equipment, safety education & outreach materials)		\$2,125
Print, binding, and publications	\$1,800	\$10
Uniforms		\$142
Communications		\$1,978
Rentals		\$1,104
Outside services		\$672
Reimbursement & ITS Reimbursement		\$1,007
Equipment Inventoriable		\$0
Equipment Non Inventoriable		\$0
Indirects		\$17,125
<b>TOTAL</b>	<b>\$10,410</b>	<b>\$167,741</b>

## Paddlesports safety



The Rivers team offered four two-day canoe schools and one kayak school for trip leaders, naturalists and other agency staff to “train the trainers.” This skills course responds to a need identified by agencies with canoe fleets that take groups on lakes and river. It provides consistent training for leading safe tours, developing risk management plans, and demonstrating appropriate canoeing skills. DNR rivers team staff also received American Canoe Association training from

instructor trainers to update training credentials. The national “Wear It” campaign was supported at events throughout the year, where promotional stickers were distributed.



### Water trails conservation crew

The rivers team manages projects that are developed and constructed by the water trails conservation crew, under contract with Conservation Corps, Iowa. The Corps' work is funded separately under a state recreational trails grants and infrastructure appropriations. The water trails conservation crew works statewide and often camps at the sites where they work. They often work in remote area where typical contractors could not. They construct portage trails and accesses, cut through log jams, and mount important navigational and warning signage in diverse settings.



### **2013 Project Highlight: Pleasant Valley Access Relocation**

The former Pleasant Valley Access was at the end of a long, secluded road in a DNR Wildlife area. The remote nature of the area attracted illegal behavior, including dumping and ATV use leading to a sandbar. The road itself sat low, and became unusable after periods of rain. A new concrete ramp was constructed for the access in a more visible location at the Pleasant Valley State Wildlife Area. The old road and parking lot was regraded, and then planted into wetland habitat.



This project was constructed in June and July of 2013. Above, note how a circular traffic flow was developed to improve service for local liveries, and biocell green space infiltrates parking lot runoff to improve water quality.

## Dam mitigation

Iowa DNR River program staff works with dam owners to retire or mitigate a variety of problems when a dam has safety hazard issues and fish passage problems. Oftentimes, federal funding is available for projects that involve fish passage, so a natural development is to solve multiple problems combined into a single project. Mitigation projects completed this year included the Klondike Dam to Rapids Conversion and the Elkader Lower Dam Removal and Whitewater Project.

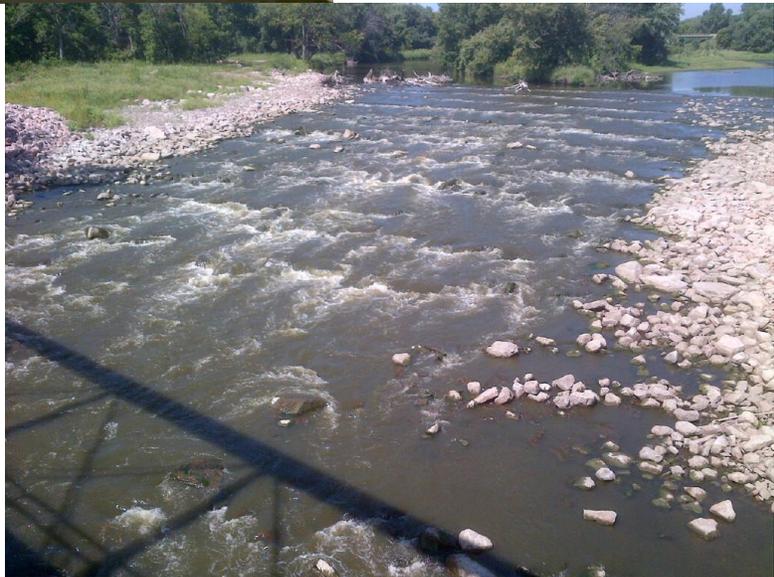
### **2013 Project Highlight: Klondike Dam to Rapids Conversion**

The Klondike Dam's purpose was to pool water that recharges a shallow aquifer for Lyon and Sioux Rural Water System. However, flood damage led to serious instability, and the dam began falling apart. Safety hazards and fish passage problems also needed to be addressed. Iowa DNR partnered with the State of South Dakota to remove and replace it with a rapids that pools water to the same elevation the dam did. The area is now safer, more accessible, and allows fish to pass upstream at both low and high water.



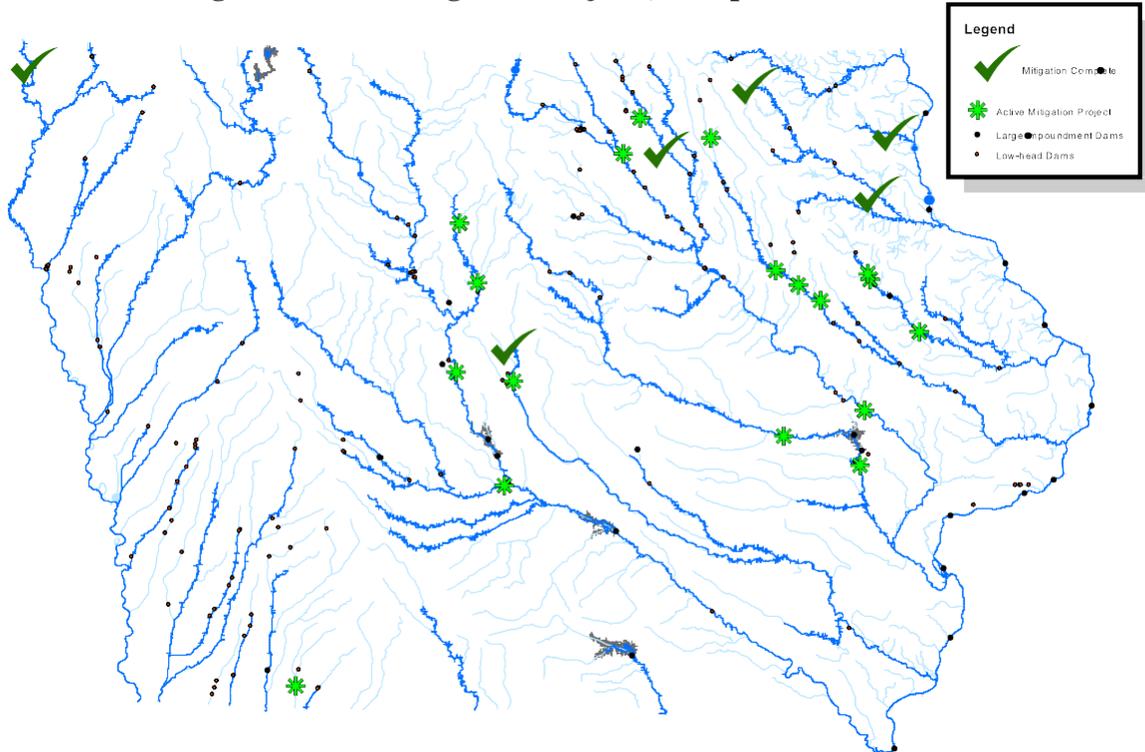
The Klondike Dam created a drowning hazard, blocked fish passage, and began to fail after the flood of 2008. The picture above shows water running under the dam, which required a temporary repair.

The new rapids allows fish to pass upstream, preserves the water supply function of the upstream pool, and anglers can more easily move through the area. Extensive plantings helped to restore important low floodplain habitat throughout the project area. The project was completed in May, 2013.



Iowa DNR staff are working with communities statewide to explore, analyze, or develop dam mitigation projects in the areas listed in Figure 1.

**Figure 1: Dam Mitigation Projects, Completed and Active**

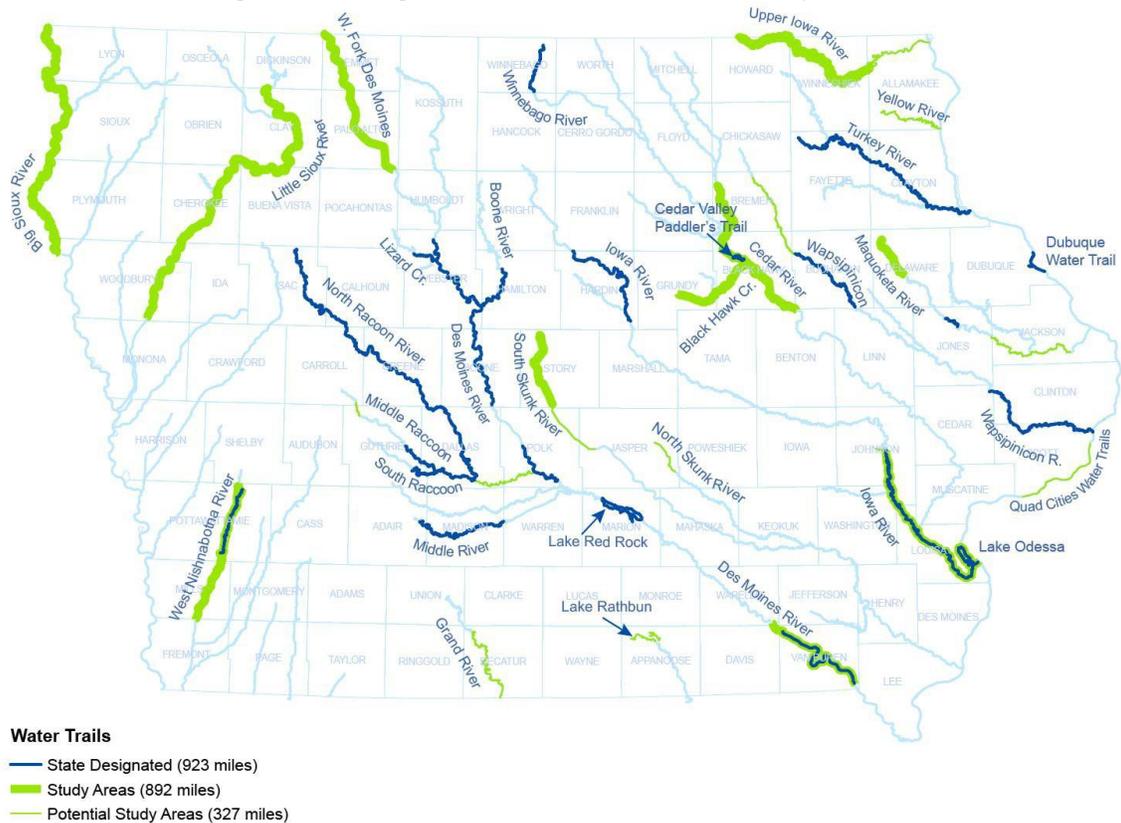


### **Program outlook**

Statewide plans have resulted in a more sensible local planning framework for water trails and low-head dams. For local entities, this will result in lower-maintenance projects with increased local ownership in water trails. Statewide, this will result in a more robust and easy-to-understand navigational system. As numbers of recreational users increase, increasing focus on managing the experiences for all Iowans – from young to old – will become more important than ever. It has also led to increased law enforcement and education needs related to interacting with private landowners and other users along navigable rivers. To handle increased use, all Iowans must learn to treat our waterways respectfully to avoid litter and obnoxious behavior.

Training programs will continue to focus on individuals who lead programs, safe livery operations, and increasing availability of American Canoe Association courses offered throughout the state will also be important responses to increasing interest in river recreation.

**Figure 2: Designated Water Trails and Study Areas**



Hazard mitigation via removal or modification at several dams in the next year are likely to include the Boone Waterworks Dam to Rapids Conversion, Goldfield Dam to Rapids Conversion, the removal of the Rockford Dam, the Quasqueton Dam to Rapids Conversion, and the Littleton Dam to Rapids Conversion projects.

Before providing additional funds or other resources are committed for new water trails, action steps for 1) implementing the new statewide plan guidelines for signage and other water trail elements and 2) prioritizing future water trails, will be the initial focus. Landowners and other stakeholders must be consulted about what types of water trail development may be most desirable and appropriate for a given area.

**Table 9**

<b>Water Trails and Dam Safety at a Glance</b>		
	<b>2006</b>	<b>2013</b>
Total number of individual water trails with state designation, to date	0	20
Number of water trails projects under development	0	12
Miles of water trails designated	0	923
Miles of water trail study areas	0	892
Number of low-head dams with warning signs	2	46
Dam-related deaths, calendar year	2	2
Number of portage trails around low-head dams completed, to date	2	34
Number of low-head dams modified or removed for safety purposes, to date	0	4

In addition to the 923 miles of state-designated water trails, the River programs staff and local planning contractors are working with local communities on 892 miles of additional water trails under active development. The program has focused on implementing statewide plans focusing on river management and law enforcement needs, infrastructure needs, and comprehensive navigational / warning signage systems based on river mileage. These plans solve address problems, including safety, overcrowding or underuse, jurisdictional issues, and user expectations.

## BOATING RECREATION INFRASTRUCTURE MAINTENANCE AND MANAGEMENT

The Iowa DNR manages state-owned boating infrastructure for boating recreation across the state. *This infrastructure is integral to safe boating and access to the waters.*



The Law Enforcement Bureau and the Fisheries Bureau do not typically manage land and do not have the staff for this type of maintenance and management. The Wildlife Bureau staff manages and maintains state

fishing access areas, boat ramps and docks in cooperation with other bureaus. See the attached Addendum A for the listing of the safe boating access areas managed by the Wildlife Bureau staff. Boating populations, including paddlers, have increased over the years and there is an ever-growing demand for safe, convenient and appropriate boating access areas.

These areas are heavily used for access 9 months of the year, or even more depending on the weather. They require frequent maintenance, especially since most are along river corridors in flood plains. Maintenance and management includes re-rocking areas, cleaning silt from the boat ramps, custodial functions such as removing trash and debris and maintaining signage. In addition to the staff time of the actual work, drive time and driving expenses are included, as Wildlife Headquarters cover 4-6 counties and the areas are remote.

The attached listing of areas represents 182 accesses that qualify for federal boat access funds. There is a detailed federal process to obtain the funds through a formula, and rigorous federal audits on those funds to make sure the boat fees and federal funds are used for the purpose of maintaining safe boat access areas. There are between one and four access ramps for each of the sites that require maintenance. The total cost per access averages out to less than \$5,000 a year in maintenance. The cost of this program is leveraged **75% federal** with 25% boat registration fees.

**Table 10**

Boat Fee Expenditures for Boating Infrastructure Maintenance & Management (Salaries for labor, contracted services, equipment, signage, publications, etc.)			
	Federal	Boat Fees	Total
FY06 (base year)	\$562,055	\$187,351	\$749,406
FY13	\$760,623	\$253,541	\$1,014,164

**NOTE: These federal funds can only be used for this purpose, and would be forfeit if not matched by boat fees.**

## **IOWA'S MARINE FUEL TAX (MFT ) PROGRAM**



The Iowa DNR Marine Fuel Tax program is not directly tied to the boat fee revenues and expenditures, but it is a complimentary program. MFT has played a vital role in providing recreational boaters new opportunities as well as maintaining public lakes used by boaters.

- **Revenue from the excise tax on the sale of motor fuel used in watercraft**  
The amount of revenue generated by the marine fuel tax legislation equals nine-tenths of one percent of the state excise tax on gas, minus 3% of the marine fuel tax total for administrative costs and minus the amount refunded to commercial fishers based on the gallons of fuel they used.
- **MFT funds are leveraged with a variety of sources including Federal Coast Guard, Corps of Engineers Section 1135, State of Iowa Parks and Institutional Roads Fund, and local city and county conservation funds.**
- **Annual MFT funding historically ranges from \$2.2 to \$2.7 million.** Funds are often “carried forward”, as they are connected with construction projects that might take multiple years to complete.
- **MFT funds are appropriated to the DNR to support and enhance recreational boating. Funded projects may include but are not limited to:**
  1. Dredging and renovation of lakes of this state.
  2. Acquisition, development, and maintenance of access to public boating waters.
  3. Development and maintenance of boating facilities and navigation aids.
  4. Administration, operation, and maintenance of recreational boating activities.
  5. Acquisition, development, and maintenance of recreational facilities associated with recreational boating.
- **Examples of MFT projects:**
  - ◆ Docks and buoys
  - ◆ New lake construction projects
  - ◆ Boat ramp restroom installations (various counties)
- **DNR Water Recreation Access Cost-Share Program**
  - ◆ Around \$100,000 of MFT funds are available in the form of grants to local cities and counties for boat access facilities to lakes and streams.
  - ◆ Projects are funded 75% state to 25% local match
  - ◆ DNR receives grant requests for 15 to 30 projects and awards amounts usually between \$2,000 and \$50,000

Addendum B is the FY 2013 MFT expense report.

**Addendum A--Wildlife Bureau Management and  
Maintenance of Boating Accesses Areas**

Badger Creek Recreation Area 1
Badger Creek Recreation Area 2
Badger Lake
Barringer Slough Wildlife Area
Bartlett Access
Bel Aire Access & Outlet
Big Sioux River Complex
Black Hawk Wildlife Area
Blackhawk Bottoms
Blue Lake
Bluebird Access
Brighton Access
Browns Lake
Center Lake Complex
Christopherson Slough Complex
Clear Lake Wildlife Unit
Cliffland Access
Cone Marsh
Dakota City Access
Dan Green Slough
Deer Island Wildlife Area
Des Moines River Access
Dewey's Pasture Complex
Diamond Lake
Edgewater Beach
Elk Creek Marsh
Elk Lake Wetland Complex
English River Access
Eveland Access
Five Island Lake
Fogle Lake 1
Fogle Lake 2
Fogle Lake 3
Gitchie Manitou
Goose Lake
Grand River Wildlife Unit 1
Grand River Wildlife Unit 2
Great Lakes Wildlife Unit

Hales Slough
Hamburg – Mitchell Access
Hardfish Access
Hawthorn Wildlife Area
Ingham-High Wetland Complex
Iowa Lake 1
Iowa Lake 2
Iowa Lake Access 3
Kettleson Hogsback Complex
Klum Lake
Lake Cornelia Access
Lake Icaria
Lake Icaria Wildlife Area 1
Lake Icaria Wildlife Area 2
Lake Sugema 1
Lake Sugema 2
Little Clear Lake
Little River
Little Sioux Wildlife Area
Little Storm Lake
Lizard Lake
Lower Hamburg Bend
MacCoon Access
McKain Access
Meadow Lake 1
Meadow Lake 2
Miami Lake Access
Middle Decatur Bend
Mississippi River Islands
Missouri River Wildlife Unit
Morse Lake
Mount Ayr Wildlife Area 1
Mount Ayr Wildlife Area 2
Nishnabotna Wildlife Unit
Odessa Wildlife Area
Orleans Access
Pickerel Lake
Prairie Lakes Wildlife Unit
Rainbow Bend Access
Rand Access

Rathbun Wildlife Area
Rathbun Wildlife Unit
Red Cedar Access
Redwing Access
Rice Lake Wildlife Area
Riverton Wildlife Area
Rock Creek Island Preserve
Rock-Sioux Access
Round Lake Wildlife Area
Rubio Access
Rush Lake
Selma Access
Shidepoke Access
Silver Lake
Silver Lake Complex
Skunk River Access
Skunk River Wildlife Area
Snyder Bend
South Skunk River Access
South Twin Lake
Spirit Lake Access
Sugema Wildlife Unit
Tama Beach Access
Thayer Pond Recreation
Three Mile Lake
Three Mile Wildlife Area 1
Three Mile Wildlife Area 2
Tieville Bend
Turkey Run Access
Turtle Bend Wildlife Area
Tuttle Lake Wetland Complex
Twelve Mile Lake
Tyson Bend
Union Mills Access
Upper Decatur Bend
Virgin Lake
Washta Access
Weedland Access
West Fork Access
West Swan Lake

White Horse Access
Wiese Slough Wildlife Area
Williamson Pond
Willow Slough
Willows Access
Winnebago Bend 1
Winnebago Bend 2

**Addendum B—MFT 2013 Expenditure Report**

<b>Project Name</b>	<b>Federal</b>	<b>MFT</b>	<b>Other</b>	<b>Total Expense</b>
<b>Water Trails</b>		\$248,196	\$36,072	\$284,268
<b>Construction Services Transfer</b>		\$275,517		\$275,517
<b>Statewide-Outside Design</b>		\$22,100		\$22,100
<b>County Cost Share Projects-cost shared</b>	\$19,706	\$19,706		\$39,412
<b>Statewide Emergency/Miscellaneous</b>		\$35,419		\$35,419
<b>Statewide Boat Docks</b>	\$180,213	\$180,213		\$360,426
<b>Parks</b>				
<b>Minor Projects-Cost Shared</b>	\$2,903	\$2,903		\$5,805
<b>Lake MacBride Main Ramp &amp; S Ramp RR</b>	\$1,210	\$1,210		\$2,420
<b>Lake Manawa-Boat Ramp South RR</b>	\$100	\$100		\$200
<b>Big Creek Beach Boat Ramps</b>	\$38,214	\$38,214		\$76,429
<b>Rock Creek Seawall</b>	\$51,786	\$51,786		\$103,572
<b>Darling, Geode, Fairport</b>	\$39,924	\$39,924		\$79,849
<b>Volga River-Boat Ramp</b>	\$780	\$780		\$1,560
<b>Springbrook-Boat Ramp Rip Rap</b>	\$10,579	\$10,579		\$21,158
<b>Ramp &amp; Access Renovation General</b>		\$3,600		\$3,600
<b>Lake Manawa-Shoreline Protection</b>		\$76,532		\$76,532
<b>Rock Creek-Restroom at South Ramp</b>		\$27,344		\$27,344
<b>Wildlife</b>				
<b>Minor Projects-Cost Shared</b>	\$30,715	\$30,715		\$61,431
<b>Maquoketa WL Unit-DeWitt Boat Ramp</b>		\$114,313		\$114,313
<b>Maquoketa WL Unit-Olin Boat Ramp</b>		\$88,937		\$88,937
<b>Fisheries</b>				
<b>Lost Grove Lake Dam Construction</b>		\$699,281		\$699,281
<b>Minor Projects-Cost Shared</b>	\$19,020	\$19,020		\$38,040
<b>W Nishnabotna River-Hwy 34 Boat Ramp</b>	\$6,770	\$6,770		\$13,539
<b>Black Hawk Lake-Outlet Repair</b>		\$20,000		\$20,000
<b>Lost Grove-Boat Ramps/Access Roads</b>	\$12,907	\$12,907		\$25,813
<b>Boone-Aquatic Invasive Spec Bldg</b>		\$97,114		\$97,114
<b>Lake Delhi-Hartwick Riffle Repair</b>		\$10,761		\$10,761
<b>Lake Ahquabi-Shoreline Armoring</b>		\$104,495		\$104,495
<b>Great Lakes-Electric Fish Barrier</b>		\$286,251	\$686,987	\$973,238
<b>Law Enforcement</b>				
<b>Minor Projects-Cost Shared</b>	\$20,085	\$20,085		\$40,169
<b>Saylorville Boat Storage Bldg</b>	\$205	\$205		\$411
<b>Water Trails Minor Projects-Cost Shared</b>	\$5,695	\$5,695		\$11,391
<b>Large Marked Patrol Boats</b>	\$87,308	\$87,308		\$174,615
<b>Seasonal Water Patrol Officer</b>	\$49,208	\$49,207		\$98,415
<b>Total Marine Fuel Tax</b>	<b>\$577,328</b>	<b>\$2,687,188</b>	<b>\$723,059</b>	<b>\$3,987,574</b>